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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,140

09/27/2006

Anders Haseth

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27799

7590

04/15/2010

COHEN, PONTANI, LIEBERMAN & PAVANE LLP  
551 FIFTH AVENUE  
SUITE 1210  
NEW YORK, NY 10176

EXAMINER

KAMAL, SHAHID

ART UNIT

PAPER NUMBER

3714

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/593,140	<b>Applicant(s)</b> HASETH, ANDERS	
	<b>Examiner</b> SHAHID KAMAL	<b>Art Unit</b> 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/18/2006</u> . | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 3714

## DETAILED ACTION

### *Acknowledgements*

This Office Action is response to the application filed on September 18, 2006. The claims 1-32 are currently pending and have been examined.

### *Information Disclosure Statement*

The Information Disclosure Statement filed on 18 September 2006 has been considered. An initialed copy of the Form 1449 is enclosed herewith.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christopher (GB2323297) (“Christopher”) in view of Kustanovich (US Patent No.: 4,659,090) (“Kustanovich”).

**Referring to claim 1**, Christopher discloses the following:

the underneath side of the outer layer of the sheet or mat (graphics sheet 18) is provided with a first pattern of electrically conductive elements at least at the positions of the pressure sensitive switches (see abstract; page 3, lines 8-18),

Art Unit: 3714

the upper side of the inner layer of said sheet or mat is provided with a second pattern of electrically conductive elements at least at the positions of the pressure sensitive switches (see fig. 2; page 3, lines 20-30),

the first pattern of electrically conductive elements and the second pattern of electrically conductive elements are arranged so as to enable temporary contact to be established at the positions of the pressure sensitive switches (see page 2, lines 14-19),

an insulation layer between said outer and inner layers is provided with cavities or holes at the positions of the pressure sensitive switches for establishing temporary contact therein, and from each cavity or hole at least one opening directed sideways for air movement during said impact or pressure activation (see abstract; page 3, lines 8-18).

Christopher does not expressly disclose at least one of the first and second patterns of electrically conductive elements is subdivided into a number of individual zones where each zone comprises a plurality of said pressure sensitive switches and the electronic circuits have separate connections to each of said individual zones.

Kustanovich discloses at least one of the first and second patterns of electrically conductive elements is subdivided into a number of individual zones where each zone comprises a plurality of said pressure sensitive switches and the electronic circuits have separate connections to each of said individual zones (see col. 1, lines 21-42; col. 3, lines 29-42).

Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have modified of Christopher for sports training or practice apparatus with the features of Kustanovich for a electrical device for indicating the force and/or location of

Art Unit: 3714

target impacts or other forces in order to provide an electrical indication of the force of impact as well as the location of impact.

**Referring to claim 2**, Christopher further discloses wherein the character and/or the thickness of the insulation layer determine(s) the detection sensitivity (see abstract; page 3, lines 8-18).

**Referring to claim 3**, Christopher further discloses wherein the second pattern of electrically conductive elements is applied on an upward surface of an inner support layer joined with the inner layer (see fig. 2).

**Referring to claim 4**, Christopher further discloses intended for use with a moveable object, in particular in the form of a ball, having a given size, wherein said positions of the pressure sensitive switches are mutually spaced in such a way that the ball or the object by impact or pressure will activate at least two pressure sensitive switches (see fig. 2; page 3, lines 20-30).

**Referring to claim 5**, Christopher further discloses wherein said first and/or said second pattern of electrically conductive elements are/is formed by printed circuit elements (see page 5, lines 7-11).

**Referring to claim 6**, Christopher further discloses wherein the outer layer of the sheet or mat is further provided with a hollow and flexible, dome-shaped protrusion at each position of the pressure sensitive switches each zone comprising a number of protrusions (see fig. 2).

**Referring to claim 7**, Christopher further discloses wherein said hollow and flexible protrusions inherently provides for a sufficient degree of elastic deformation when activated by said impact or pressure, which also affects the degree of detection accuracy (see page 3, lines 20-30).

**Referring to claim 8**, Christopher further discloses wherein said hollow and flexible protrusions are further provided with spring elements, preferably of metal, for obtaining a sufficient degree

Art Unit: 3714

of elastic deformation when activated by said impact or pressure (see page 2, lines 21-27).

**Referring to claim 9**, Christopher further discloses wherein the shape of said protrusions is substantially circular as seen in plan view (see page 2, lines 14-19).

**Referring to claim 10**, Christopher further discloses wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line (see page 3, lines 8-18).

**Referring to claim 11**, Christopher further discloses wherein said at least one line located or provided on said surface, contains line zones having pressure sensitive switches, preferably with said line zones arranged in the longitudinal direction of said at least one line (see page 3, lines 8-18).

**Referring to claim 12**, Christopher further discloses wherein the second pattern of electrically conductive elements is applied on an upward surface of an inner support layer joined with the inner layer (see page 3, lines 20-30)

**Referring to claim 13**, Christopher further discloses intended for use with a moveable object, in particular in the form of a ball, having a given size, wherein said positions of the pressure sensitive switches are mutually spaced in such a way that the ball or the object by impact or pressure will activate at least two pressure sensitive switches (see page 6, lines 12-19).

**Referring to claim 14**, Christopher further discloses intended for use with a moveable object, in particular in the form of a ball, having a given size, wherein said positions of the pressure sensitive switches are mutually spaced in such a way that the ball or the object by impact or pressure will activate at least two pressure sensitive switches (see page 6, lines 12-19).

Art Unit: 3714

**Referring to claim 15**, Christopher further discloses wherein said first and/or said second pattern of electrically conductive elements are/is formed by printed circuit elements (see page 3, lines 20-30).

**Referring to claim 16**, Christopher further discloses wherein said first and/or said second pattern of electrically conductive elements are/is formed by printed circuit elements (see page 2, lines 21-27).

**Referring to claim 17**, Christopher further discloses wherein said first and/or said second pattern of electrically conductive elements are/is formed by printed circuit elements (see page 5, lines 7-11).

**Referring to claim 18**, Christopher further discloses wherein the outer layer of the sheet or mat is further provided with a hollow and flexible, dome-shaped protrusion at each position of the pressure sensitive switches, each zone comprising a number of protrusions (see page 6, lines 12-19).

**Referring to claim 19**, Christopher further discloses wherein the outer layer of the sheet or mat is further provided with a hollow and flexible, dome-shaped protrusion at each position of the pressure sensitive switches, each zone comprising a number of protrusions (see page 2, lines 14-19).

**Referring to claim 20**, Christopher further discloses wherein the outer layer of the sheet or mat is further provided with a hollow and flexible, dome-shaped protrusion at each position of the pressure sensitive switches, each zone comprising a number of protrusions (see page 2, lines 14-19).

**Referring to claim 21**, Christopher further discloses wherein the outer layer of the sheet or

Art Unit: 3714

mat is further provided with a hollow and flexible, dome-shaped protrusion at each position of the pressure sensitive switches, each zone comprising a number of protrusions (see page 2, lines 14-19).

**Referring to claim 22**, Christopher further discloses wherein said hollow and flexible protrusions are further provided with spring elements, preferably of metal, for obtaining a sufficient degree of elastic deformation when activated by said impact or pressure (see page 3, lines 8-18).

**Referring to claim 23**, Christopher further discloses wherein the shape of said protrusions is substantially circular as seen in plan view (see abstract).

**Referring to claim 24**, Christopher further discloses wherein the shape of said protrusions is substantially circular as seen in plan view (see fig. 2).

**Referring to claim 25**, Christopher further discloses wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line (see fig. 2; page 3, lines 20-30).

**Referring to claim 26**, Christopher further discloses wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line (see fig. 2; page 3, lines 20-30).

**Referring to claim 27**, Christopher further discloses wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one



Art Unit: 3714

line (see abstract; page 3, lines 8-18).

**Referring to claim 28**, Christopher further discloses wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line (see abstract; page 3, lines 8-18).

**Referring to claim 29**, Christopher further discloses wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line (see abstract; page 3, lines 8-18).

**Referring to claim 30**, Christopher further discloses wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line (see fig. 2; page 3, lines 20-30).

**Referring to claim 31**, Christopher further discloses wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line (see abstract; page 3, lines 8-18).

**Referring to claim 32**, Christopher further discloses wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line (see fig. 2; page 3, lines 20-30).

Art Unit: 3714

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the patent examiner should be directed to Shahid Kamal whose telephone number is (571) 270-3272. The Patent examiner can normally be reached on Monday-Thursday (8:30am -7:00pm), Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on (571) 272-4430. The fax phone number for this origination where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-directed.uspto.gov>.

Should you have any questions on accessing to the Private PAIR system, contact the Electronic Business Center (EBC) at 1(866) 217-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 1(800) 786-9199 (IN USA OR CANADA) or 1(571) 272-1000.

SK

02/26/2010

/Pierre E. Elisca/

Primary Examiner, Art Unit 3714